

Monument Lettering Paint

Mineral Silicate Finish

Exterior / Interior

Easy to use, colorfast/non-fading, UV stable, silicate-based mineral paint, for coloring lettering or backgrounds on monuments. Commonly used for restoration and renovation of historic monuments because of its unique handcrafted quality, period correct formulation, breathability, durability, and its physical properties which fit the characteristics of historic monuments.

1. Product Properties

BEECK Monument Lettering Paint is a solvent-free one-component silicate paint system that uses a potassium silicate (water glass) binder. A chemical reaction takes place between the mineral substrate and the potassium water glass, producing uniform inseparable bonding. Monument Lettering Paint uses pure mineral pigmentation giving it optimum color and weathering performance. The single component system offers cost-effective easy renovations while creating a desirable mineral matte and water vapor permeable surface. The sole use of inorganic mineral pigments ensures extreme UV stability while maintaining the original color integrity. Monument Lettering Paint can be used universally on all raw masonry surfaces or for the renovation of synthetic resin bonded surfaces such as firmly adhering microporous old emulsion-based coatings, synthetic resin stuccos/renders, limestone, sandstone, marble, granite and other types of natural stone.

1.1. Composition

- Pure mineral potassium water glass, produces the best breathability properties
- Inorganic pure mineral pigments: lightfast, non-fading even in the most extreme conditions
- Auxiliary agents and binder, universal bonding performance
- Water thinnable up to 10%, solvent free

1.2. Technical properties

1.2.1. Overview

- Easy to use – excellent durability in extreme weather conditions
- Extremely high water vapor permeable (breathable) and valuable building physics properties
- Maximum colorfastness A1 (BFS leaflet No. 26) - best possible - No fading, UV stable
- Natural alkalinity helps to prevent algae and mold
- Environmentally responsible, sustainable, extremely low VOC product containing no solvents
- Re-mineralizes surfaces - make it look new again
- Very flat mineral matte - desirable appearance
- High hiding capacity – easy to refinish, no stripping ever required
- Mineral finish stays clean longer and is easy to clean when necessary
- Nonflammable – will not burn
- Pollution and acid rain resistant
- Non-film-forming – surface remains breathable
- Exceeds the strictest air quality regulations, can be applied anywhere
- Contributes to LEED

1.2.2. Data Important for building physics characteristics*

| Parameter | Value | Conformity |
|--|--|--------------------------------------|
| Density 20°C: | 1.45 – 1.48 kg / l | |
| pH value 20°C: | 11 | |
| Dynamic viscosity 20°C: | 5,000 – 8000 mPas | |
| W ₂₄ value: | < 0.12 kg/(m ² h ^{1/2}) Class III | EN1062-3 |
| Vapor permeability (H ₂ O): | (Best in class) 0.01 - 0.03 m, S _d value | ISO 7783-2 |
| | 75 - 85 Perms | ASTM E96 |
| V value Water vapor transmission rate | ≥ 2100 (g/m ² d) | EN 1062-1 |
| Colorfastness**: | (Best in class) A1 | BFS Information Sheet No. 26 |
| Gloss level at 85°: | matte (0.5 – 1.0) | EN ISO 2813 |
| Flammability class: | A2 nonflammable | EN 13501-1, DIN 4102 |
| VOC content (max.): white or tinted | ≤ 8-10 g / L | ChemVOCFarbV, Cat. A / c, ASTM D6886 |
| Thermal Expansion | Matches the masonry surface | |
| Flash point | nonflammable | |
| Accelerated Weathering | pass | ASTM G154 |
| Wind Driven rain | pass | ASTM E514 |

* applicable to white | ** applicable to tinted

1.2.3. Color

- White and all 200 colors in the BEECK Mineral Paint Color Chart
- Color groups: I – IV on the BEECK mineral color charts
- Monochrome color shades: C-651, C-652, C-653, C-654, C-655, C-656, C-657, C-658, C-659, C-660 and C-661
- Custom color matching available. Contact BEECK about getting your color matched

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2. Use

2.1. Substrate requirements

- The substrate must be clean, dry, sound, and stable. It must be free from efflorescent, salts, oils and other incompatible substances
- All new uncoated concrete or masonry must be properly cured before painting
- Carefully patch areas needing repair with the same type of material and the same texture
- Horizontal and slightly sloping surfaces weather faster than vertical surfaces and may require more frequent maintenance. Additional intermediate coats of Monument Lettering Paint can be applied to these surfaces to extend the maintenance cycle.
- Polished shiny or sealed surfaces are not suitable for coating.
- Low absorbing stones should be primed first with MBA Fixative. (Granite and Marble)
- Remove, treat and rinse all algae and fungi infested surfaces. Clean biological stained façades with Beeck Mineral Paints D/2 Biological Solution according to the factory specifications.

2.2. Brief information on standard Monument Lettering Paint system

- Apply two coats of BEECK Monument Lettering Paint. Additional coats extend the lifecycle of the coating
- Optimally adjust BEECK Monument Lettering Paint to the substrate texture and absorbency by adding water up to 12 oz. per gallon. Do not exceed 10%. Typically, thinning is only required for the first coat. If additional thinning is needed to compensate for extreme absorbency or texture, please contact your BEECK representative.
- Optionally treat the substrate with BEECK HBP Silane 100 for added water repellency.

2.3. Substrate and preparatory treatment

- **Old film-forming coatings:**
 - Remove all cracked or loosely bonded old coatings.
 - Check the adhesion and soundness of all remaining coats.
 - Thoroughly clean tightly bonded coatings.
 - Check for moisture damage and efflorescence (e.g. salt edges, iron salts) and repair all defects.
 - Prime highly absorbent or crumbling surfaces with BEECK MBA-Fixative, thinned with 2 parts water. Any product that remains wet on the substrate surface after 10 minutes must be removed.
 - Clean, treat and rinse all algae and fungi stained surfaces with Beeck Mineral Paints D/2 Biological Solution or a fungicidal treatment.
 - Note regarding cleaning: surfaces are sometimes slow to dry, allow for sufficiently long drying periods between cleaning and coating. Clean pressure-sensitive surfaces gently, without damaging the material. Pressure washing is generally not recommended.
- **All types of Masonry, Limestone, Sandstone, Granite, Marble, Lime or Cement stucco/plaster/render, Concrete, GFRC and other mineral surfaces:**
 - Allow proper drying and curing of newly installed mortars and cement.
 - Use an etching fluid to remove sinter skin on solid new mortar, render/stucco and concrete.
 - Clean thoroughly, check for moisture damage and efflorescence (e.g. salt edges, iron salts) and repair all defects.
 - Prime highly absorbent surfaces with BEECK MBA fixative, thinned with 2 parts water. Any product that remains wet on the substrate surface after 10 minutes must be removed.
 - For sanding surfaces, flow coat several times wet-on-wet with the following mixture, 1 part BEECK Fixative or BEECK MBA Fixative and 5 parts water, until completely saturated. Any product that remains wet on the substrate surface after 10 minutes must be removed. Process may be repeated every 12 hours until substrate is sound.
 - Clean, treat and rinse all algae and fungi stained surfaces with Beeck Mineral Paints D/2 Biological Solution or a fungicidal treatment.
 - Low absorbing stones should be primed first with MBA Fixative. (Granite and Marble)
 - For formed concrete, use a high-pressure cleaner or whatever method is needed to clean concrete pore-deep and to remove any residual release agent, then rinse with plenty of clean water.
 - For best results, prime fiber cement substrates that are being used exterior with Beeck Mineral Paints HBP Silane 100 and BEECK Bonding Coat Fine/Coarse before coating with Monument Lettering Paint.
- **If your substrate was not listed or if you have questions contact your BEECK representative for recommended application and surface prep.**

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- **Unsuitable substrates** are large horizontal or slightly sloping surfaces exposed to the weather, walking surfaces, polished or sealed surfaces, unstable substrates, efflorescent surfaces containing salts and non-alkali-resistant substrates such as wood-based materials (MDF, OSB), many old oil based coatings, loam, gypsum, and plastics as well as non-firm and plasto-elastomeric coatings.
- **Defective substrates** require differentiated approaches. Contact your BEECK representative regarding recommended application and surface prep for your specific condition.
 - Clean, treat and rinse all algae and fungi infested surfaces with Beeck Mineral Paints D/2 Biological Solution or a fungicidal treatment.
 - Clean thoroughly, check for moisture damage and efflorescence (e.g. salt edges, iron salts) and repair all defective joints and surfaces.

2.4. Application instructions

2.4.1. General information

Check substrate suitability as required (see 2.1, 2.2 and 2.3). Pay particular attention to the absorbency, strength and texture of the respective substrate. Prepare a trial or test area before using on high visibility and critical surfaces. Ensure that the product is applied by a qualified person.

- The substrate must be clean, dry (less than 30% humidity), sound, and stable. It must be free from efflorescent, salts, oils and other incompatible substances.
- Carefully cover surfaces which are not to be treated – especially glass, ceramics, metals, expansion joints, lacquer and anodic coatings – protect them from splashes, drips or splatters.
- Provide personal protective equipment.
- Only use containers from the same production batch to coat self-contained or continuous surface areas.
- Before use, stir BEECK Monument Lettering Paint thoroughly with a power mixer. Take care not to incorporate air into the product.
- Adjust consistency of BEECK Monument Lettering Paint for substrate absorbency and product flow by adding clean water. Max 12 oz. per gallon or 10%. Typically, thinning is only required for the first coat to compensate for extreme absorbency or texture, please contact your BEECK representative with any questions.
- Do not use in rain/wet conditions, if there is a risk of frost, on hot surfaces or in the blazing sun or in high winds.
- Application surface and drying temperature should be in the following range: +40°F to +86°F (+4°C to +30°C)
- Drying time: at least 12 hours per coat. Protect from rain or wet conditions for min. 24 hours. Do not view color before product is dry.
- Protect freshly coated areas from the rain; hang up scaffolding sheeting in front of the surface being worked on.
- Uniform product application is important to achieve a high-quality substrate appearance. This is most important on surfaces that receive glancing light or where surface appearance is critical.

2.4.2. Application

Apply with brush, roller or using a spraying method. For most projects it is best to apply by brush. Apply to continuous surface areas without any breaks or stops maintaining a wet edge. No overlapping or dry edges; apply in one continuous equal pass.

- **Application with brush or roller:**
 - Rollers and brushes with a uniform coating finish are suitable.
 - Avoid roller edges, ridges, overlapping and over coating areas that have already begun to dry.
 - Cut-in edges smoothly and seamlessly, wet-on-wet, together with the main area.
 - As a brushed surface, use a BEECK Mineral Paint Brush or other high quality tools to spread in any particular direction.
 - Coats:
 - Primer coat: Thin product with no more than 12 oz/gal or 10 % with clean water to improve flow and to compensate for absorbency. On low absorbent surfaces it is not recommended to this the first coat.
 - Topcoat: After at least 12 hours, un-thinned is recommended however in some cases it may be applicable to thin up to 6 oz/gal or 5% with clean water.
- **Spraying method (airless or HVLP):**
 - Nozzle: 0.79 mm / 0.031 inch
 - Always sieve product before use, apply uniformly and as a thin coat.
 - It is recommended to uniformly lay-off with a brush or roller on most large surfaces.

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2.5. Auxiliary products

- Etching Fluid for removing sinter layers on solid new concrete and mortars.
- BEECK HBP Silane 100, water-repellent primers for reducing moisture transport and salt efflorescence.
- BEECK Bonding Coat Fine, smooth white primer with excellent adhesion properties.
- BEECK Quartz Filler, fiber reinforced, silicate-based, slurry priming coat for covering hairline cracks and minor structural defects. Apply over whole surface with the brush. BEECK Quartz Filler can also be mixed 1:1 with BEECK Monument Lettering Paint as a coarse-grained primer and/or intermediate coat. Same color topcoat with BEECK Monument Lettering Paint.
- BEECK Renosil Coarse, with texture grain (0.4 mm) for coarse-grained primer and intermediate coatings. Same color topcoat with Monument Lettering Paint.
- BEECK Fixative or MBA Fixative, a primer, or pretreatment for highly absorbent or sanding substrates.
- BEECK Mineral Paints D/2 Biological Solution.
- BEECK Mineral Paint Brushes.

3. Application Rate and Container Sizes

The application rate (i.e. the quantity required for smooth, normally absorbent substrates) is approx. 300 – 325 sq ft / gallon (0.13 L / m²) per coat. Higher absorbent and higher textured substrates will increase consumption. Try out on a test area on site to determine substrate-related differences.

Container sizes: 1 Quart / 1 Gal / 3 Gal pails

4. Cleaning

Thoroughly clean equipment, tools and soiled clothing with water immediately after use.

5. Storage

Stored in cool and frost-free unopened containers, BEECK Monument Lettering Paint can be kept for at least 12 months.

6. Hazard notes, safety instructions and disposal

Comply with the Safety Data Sheet. Safety Data Sheet available on request or at BeeckMineralPaints.com.

Precautionary statements: Keep out of reach of children. Do not get in eyes, on skin, or on clothing. Wear eye/face protection. The product is alkaline. Do not breathe vapors, spray-mist and dust. Carefully protect the area surrounding the surface to be coated, wash off splashes immediately with water. Dispose of product and containers in accordance with all official regulations. Waste disposal number: 080112

7. Declaration

This technical information is offered as advice based on our knowledge and experience. All information is provided without guarantee. It does not release the user from their responsibility to check the product suitability and application for the specific substrate on which the product is to be used. All information is subject to change without notice as part of our ongoing product development. Non-system additives for tinting, thinning, etc. are not permitted. Check the colors before use, allow to dry 12 hours before viewing color. This information sheet automatically becomes invalid when a new edition is issued. The information in the current version of the Safety Data Sheets is binding for classification according to the Hazards identifications, disposal considerations, etc.